COLLEGE STATE BD. S. C.
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Dr. E. H. Deloreto
Medical College

The Journal OF THE South Carolina Medical Association

VOL. XX. GREENVILLE, S. C., OCTOBER, 1924 NO. 10

MEDICAL COLLEGE NUMBER

CONTENTS

EDITORIAL DEPARTMENT:
- The State Medical Association and the Medical College ---- 239
- Vote for the Bond Issue ---- 240
- Great Celebration One Hundredth Anniversary Medical College of the State of South Carolina ---- 240
- Tentative Program ---- 240
- History of the Roper Hospital ---- 240
- History of the Medical College ---- 244

ORIGINAL ARTICLES:
- Some Observations Made in the Treatment of Three Hundred Cases of Hemorrhoids by the Injection Method by Thos. Brockman, M. D., Greer, S. C. ---- 247
- Notes on The Progress of The Science of Nutrition by William Weston, M. D., Columbia, S. C. ---- 250
- The Diagnosis and Treatment of Placenta Previa by Lester A. Wilson, M. D., Charleston, S. C. ---- 255
- Blood Chemistry by C. C. Craft, M. D., Florence, S. C. ---- 258
- Office Treatment of the Diseases of the Anus and Rectum by F. M. Durham, M. D., Columbia, S. C. ---- 261

PEDIATRICS DEPARTMENT ---- 266
SOCIETY REPORTS ---- 267
SURGERY DEPARTMENT ---- 268
EYE, EAR, NOSE AND THROAT DEPARTMENT ---- 269

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Colonial Lake **Charleston, S. C.**

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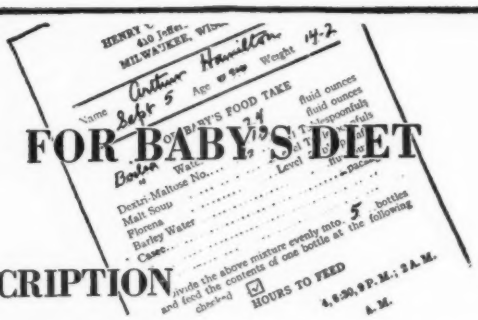
HENRY L. ...
410 Jeffer...
MILWAUKEE, Wisc.
Name Arthur Hamilton Age 10 mo. Weight 14-2
Date Sept 5
BABY'S FOOD TAKE
Boston Walk... Level ... Number ...
Dextri-Maltose No... 24 fluid ounces
Malt Soup ... fluid ounces
Plorena ... teaspoonfuls
Barley Water ... tablespoonfuls
Casec ...
Divide the above mixture evenly into 5 bottles and feed the contents of one bottle at the following checked HOURS TO FEED
6, 6:30, 9 P. M.; 2 A. M.
A. M.

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A written prescription is definite and cannot be forgotten.

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CITY_____ STATE_____

The Journal
OF THE
South Carolina Medical Association

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EDITORIAL

THE STATE MEDICAL ASSOCIATION AND THE MEDICAL COLLEGE

The South Carolina Medical Association owes a tremendous debt of gratitude to the Medical College of the State of South Carolina for loyal support of all of its enterprises for three quarters of a century. Indeed in all the trying days of the Association's history the members of the faculty of the Medical College have rallied strongly to the aid of the Association.

The high scientific attainments of the faculty and their frequent contributions to the Association have had a profound influence in placing the State Medical Association on the high plane it now enjoys in the esteem of scientific circles throughout the world.

The Journal is keenly interested in the success of the celebration of the one hundredth anniversary of this splendid institution.

We urge every member of the Association who possibly can do so to be present. We should make an extra effort to show our appreciation of the great record made by the college in the past century of its existence. Not the least attraction will be the opportunity to profit by the splendid two day post graduate program outlined elsewhere. More than half the profession of this State graduated from the Medical College of the State of South Carolina and the remarkable growth of the Alumni Association under the presidency of Dr. D. M. Crosson who is also President of the State Medical Association assures a large attendance by the former graduates.

VOTE FOR THE BOND ISSUE

The medical profession of South Carolina will as usual we believe lend its influence toward the enlarged educational program involved in the ten million dollar bond issue to be voted on in November.

The Medical College is especially to be considered as in urgent need of funds for its enlargement. The applications for entrance far exceed the facilities and therefore the future supply of doctors is imperiled.

GREAT CELEBRATION ONE HUNDREDTH ANNIVERSARY MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

The Medical College of the State of South Carolina will celebrate, in a fitting manner, its 100th anniversary on November 12th and 13th. Plans are under way to make this one of the great occasions in its history, and it is expected that there will be a large gathering of physicians of the State, along with the alumni of the Medical, Pharmacy and Nursing Departments.

The program will include a beautiful tableau illustrating the phases of medical advancement, clinics by the Staff at the Roper Hospital on medical, surgical and pediatric subjects, a reception at the Charleston Museum, at which will be shown the "Old Apothecary Shop," the oldest in America, class reunion luncheons, terminating in a banquet at the Francis Marion Hotel. At this latter there will be representatives from all of the State Colleges and several distinguished medical educators, who will give short speeches. All of the details have not been worked out, but the program promises to be of distinct educational value, besides affording considerable interest and enjoyment.

TENTATIVE PROGRAM for CENTENNIAL CELEBRATION of THE MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

NOVEMBER 12, 1924.
8:30 P. M.

Tableau illustrating phases of medical advancement, at Charleston High School Auditorium.

The College's guests and the public generally are invited.

NOVEMBER 13, 1924.

9:00 A. M. to 1:30 P. M.—Clinics at Roper Hospital.

12:00 M.—Unveiling tablet in honor of Dr. F. L. Parker.

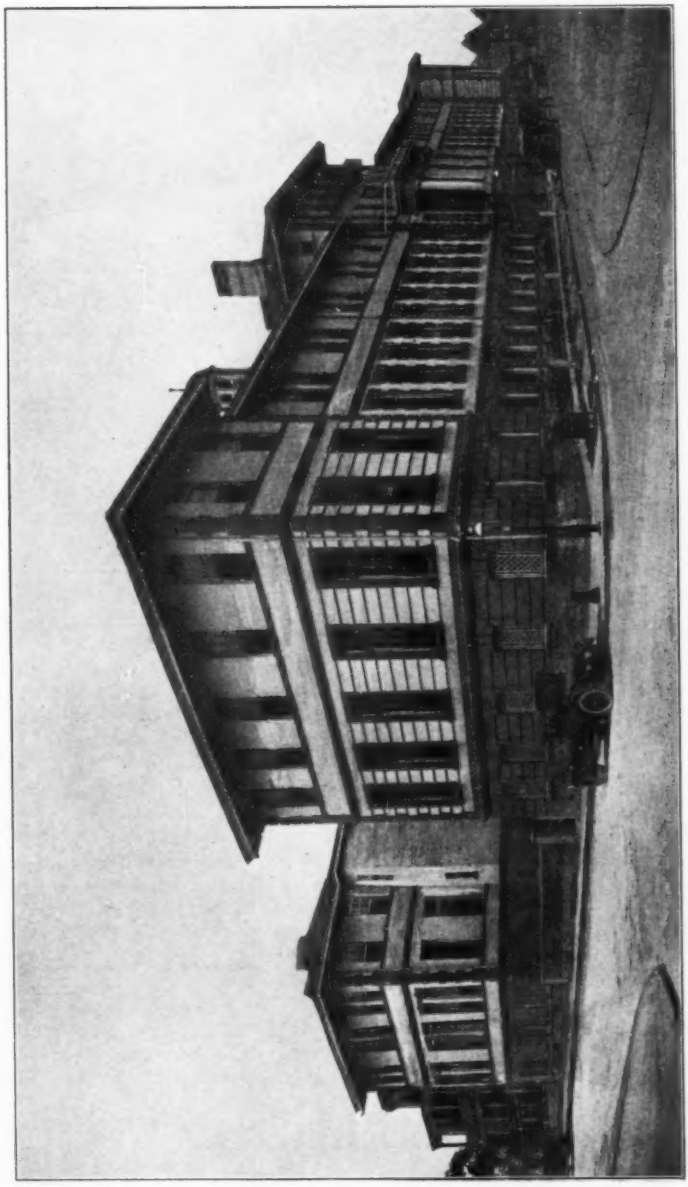
2:00 P. M.—Class Reunion Luncheons.

4:00 P. M.—Reception at Charleston Museum, Exhibiting "Old Apothecary Shop."

7:00 P. M.—Banquet Francis Marion Hotel Given by Alumni to guests.

HISTORY OF THE ROPER HOSPITAL

The Roper Hospital, a property valued at nearly $500,000, on Calhoun and Lucas streets, is one of Charleston's really great institutions, and has in the past few years expanded impressively. It stands as a monument to the benevolence of her citizens and especially to Thos. Roper, whose far seeing vision made its existence possible. It is also a testimonial of the devotion and practical idealism of the medical profession of Charleston. For the past eighteen years this institution has cared for the maimed, the sick and the injured poor of Charleston, and it has rendered a service of incalculable benefit to the community. It has afforded the best and most improved methods of medical and surgical treatment to the afflicted poor of this city. In addition to rendering service to the needy citizens in the hospital, at their homes and in the Shirras Dispensary (which is the out-patient department of the hospital) treatment has been afforded persons with limited means in its private departments. It has furnished isolation and care of contagious diseases, and by so doing has been a factor



ROPER HOSPITAL
Where Clinics will be held at the MEDICAL COLLEGE CENTENNIAL CELEBRATION, on November 13, 1924.

in reducing the mortality of many of these diseases.

Aside from caring for the sick and injured, the hospital is one of the great educational institutions of the city and of the State. It would not be far wrong to say that it has been a great factor in the spread of medical knowledge in the South Atlantic States, for as a great teaching institution in connection with the Medical College of South Carolina, the graduates in the medical and nursing professions have received their training and gone forth to practice their professions, locating in most instances in this section, though graduates of these institutions are scattered all over the United States.

The history of the development of the present hospital is closely interwoven with the history of Charleston, and is one which bears testimony to the fine public spirit of its citizenship. The present hospital building was erected in 1905 by the Medical College Society of South Carolina, as trustees for the Roper fund. Thomas Roper, for whom the hospital is named, bequeathed thirty thousand ($30,000) dollars in trust to the Medical Society of South Carolina, to receive and reinvest it until a sufficient amount had accumulated, or aid received from public and private benefaction to erect and sustain a hospital. The present plant, however, is the outgrowth of the old Roper Hospital which was situated on Queen Street, adjoining the old Medical College building. This hospital was commenced in 1850 and finished the latter part of 1852. Owing to an epidemic of yellow fever which broke out after the erection of this hospital (and it became necessary to use the hospital to care for these afflicted persons) the old Roper Hospital did not open until 1854. Under contract with city council the hospital was run until the Civil War, taking care of the sick poor and temporary insane persons to the satisfaction of the community. During the war the hospital was thrown open for the treatment for the wounded and sick soldiers, but during the bombardment of Charleston it became necessary to remove the sick to the upper wards of the city, as the building became unsafe on account of shell fire. When the city was occupied the hospital was taken over by the federal authorities, and at the close of the war, returned to the trustees, the federal authorities paying the trustees $2,300.00 for rental. On account of the poverty of the community at the close of the war, city council was no longer able to maintain the hospital, but the trustees managed to carry on on a contracted scale until 1871, when it was given up as a useless struggle and was never operated again under the auspices of the Medical Society, though its wards are used by the city at a minimum rental. By carefully preserving and investing the funds remaining and by receiving donations from various private sources, the trustees of the Roper fund had accumulated more than $150,000 by the commencement of the present century. This sum being deemed sufficient, the Medical Society appealed to city council to permit the erection of a modern hospital and to agree to sustain it. In 1905 a definte agreement was entered into and the new hospital was constructed on its present site, this land being then occupied by the old City Hospital and was donated by the city for this purpose.

Since its opening in 1906 great advances have taken place in the treatment of medical and surgical diseases. The program of medical education has been widely extended and with a limited appropriation the hospital has had a terrific struggle to keep abreast of the times. That it has succeeded is demonstrated by the fact that it was the first hospital in South Carolina to be classified as an "A" hospital by the American College of Surgeons and the American Hospital Association.

The hospital is maintained by appropriations from the city made annually on a budget system. In the past, though in many instances generous, these appropriations have never been sufficient to meet the ever growing needs of the hospital. Since 1920 appropriations have been received from the county, and the hospital has been designated as the County Hospital. In order to obtain this appropriation it was shown that the Roper Hospital had in the past cared for a large number of cases who lived just outside of the city limits and in various other portions of the county. The amount received from these sources barely covers the increasing number of pauper patients of the county. Besides these moneys, in recent years bequests have been made to the Medical Society for the maintenance of the hospital. The income from these endowments is coming in and the hospital is improving and extending its usefulness.

The Roper Hospital, in its conception and management, is unique. There is perhaps no other hospital in America which has been established on such unusual lines. It is op-

MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA

erated by the Medical Society of South Carolina as trustees for the Roper Hospital and other bequests; it is maintained by city and county appropriations, by fees from its private departments and by income from endowments. Professional service is rendered through the faculty of the Medical College of the State of South Carolina. The Medical Society manages the hospital through a board of commissioners which are elective officers of the Society. The Dean of the Medical College is responsible to the Board for the proper professional care of the patients. By this arrangement most satisfactory results are obtained. Enlightened citizens are recognizing more and more the necessity of endowments to the hospital under the present system of management and they have an opportunity to make endowments through a responsible body—the Medical Society. Municipally owned and operated hospitals rarely appeal to those wishing to make benefactions to help the poor and unfortunate. Whereas with privately managed support the hospital appeal is stronger.

The relation of the Medical College to the hospital is most happy. The Hospital furnishes the clinical material for study and investigation. The Medical College furnishes the laboratory facilities to help in the clinical investigations of cases, and it furnishes its all time faculty members as laboratory experts. In this way there is a great saving financially for both institutions and the arrangement is most satisfactory from the standpoint of scientific research and study. The Hospital is managed by a superintendent under the direction of the Board of Commissioners. There is a nursing staff consisting of a directress of nurses, seven supervising nurses, one anesthetist and one dietitian. The professional service is rendered by a physician-in-chief and fifteen attending physicians, a surgeon-in-chief and twenty-three attending surgeons and two consulting dentists.

HISTORY OF THE MEDICAL COLLEGE

It was in 1821 that the idea of establishing a medical college in Charleston originated in the mind Dr. Samuel Henry Dickson, who discussed it with his colleagues, Dr. James Ramsay and Dr. Henry R. Frost. The following year Dr. Thomas Cooper, President of the South Carolina College, in a letter addressed to Dr. Wagener, suggested that "the medical board of your city be called to consider the expediency of coinciding with us here in the plan of a medical school." The Medical Society of South Carolina expressed itself as heartily in sympathy with Dr. Cooper's suggestion, but thought that Charleston was the appropriate place for the establishment of the proposed college, and a committee was apointed to memorialize the legislature, praying for the organization of a medical school at Charleston. Inasmuch as an appropriation was requested, the legislature failed to approve the proposition. During the summer of the following year, 1823, Dr. Ramsay and Dr. Dickson delivered a course of public lectures on surgery and physiology and the practice of medicine. In the fall of the same year a second memorial was presented to the legislature requesting authority to establish a medical school and to confer degrees, this time with success, because an appropriation was not requested.

Under this authority, the Medical College of South Carolina opened its doors in November, 1824 with the following faculty:

Dr. John Edward Holbrook, Professor of Anatomy.

Dr. James Ramsay, Professor of Surgery.

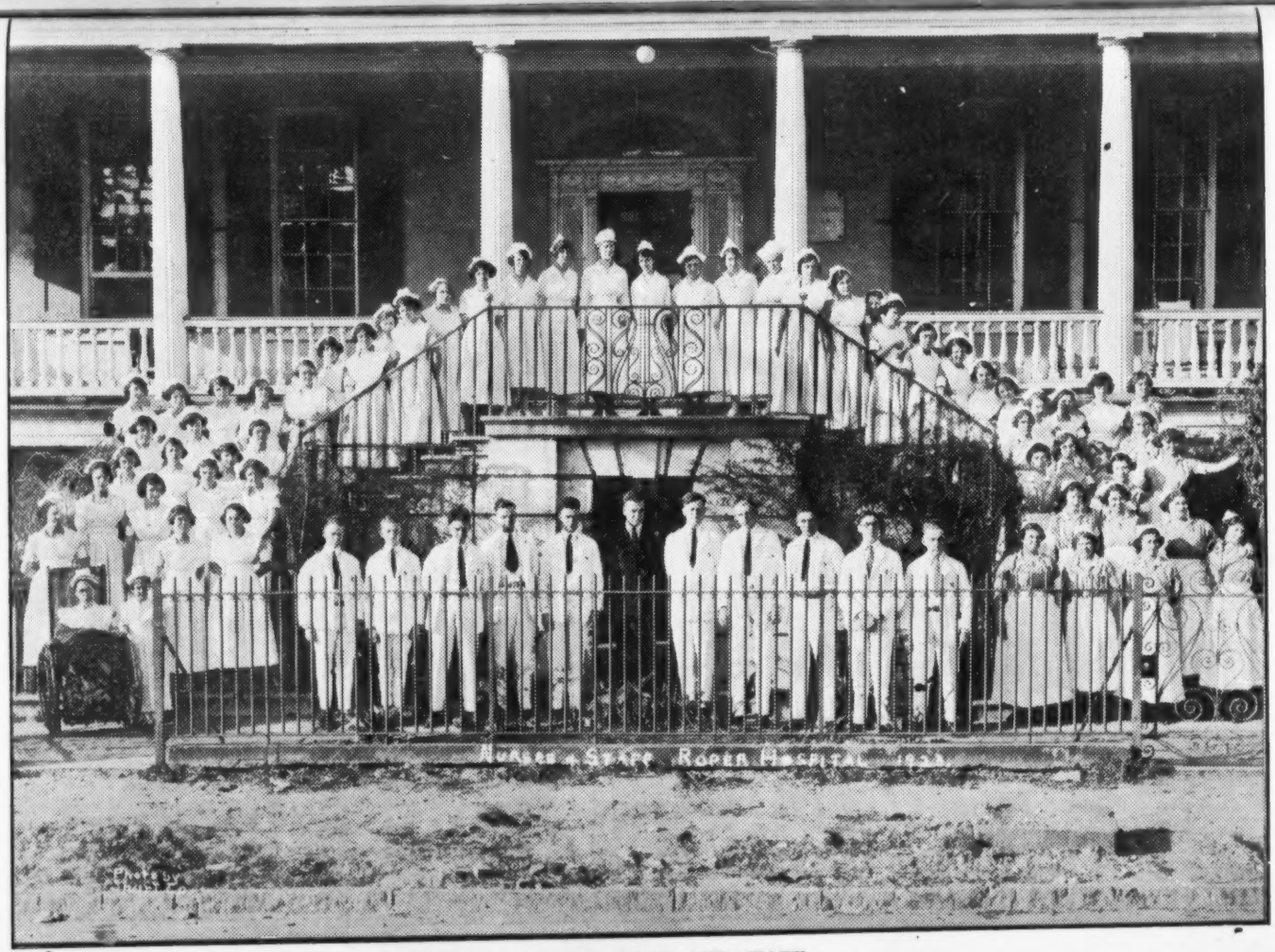
Dr. Samuel Henry Dickson, Professor of the Institutes and the Practice of Medicine.

Dr. Thos. G. Prioleau, Professor of Obstetrics and Dean of the Faculty.

Dr. Edmund Ravenel, Professor of Chemistry and Pharmacy.

Dr. Henry R. Frost, Professor of Materia Medica.

The growth of the new college so far exceeded expectation that in less than ten years nearly one thousand students had been enrolled. With this rapid expansion it soon became necessary to provide other quarters and the City Council was petitioned to appropriate $15,000.00 for a new building in return for the assumption by the society of medical attendance upon the charitable institutions of the city for a period of 25 years. The offer was accepted, and with this money the college building, which still stands on Queen Street, was erected and opened in 1827. In 1825 Governor Manning recommended, in his annual message, an appropriation of $10,000 to be "placed at the disposal of the faculty of the said college for the completion of their buildings, and the purchase of apparatus necessary and proper for such an institution." Another appropriation of $7,000 was made by the legislature in 1830, upon the recommenda-



THE NURSES HOME AND STAFF

tion of Governor Stephen D. Miller. It is thus evident that the State recognized the importance of nurturing this young and virile institution, in order to educate at home many young men who would otherwise have gone abroad for their professional training.

In 1831 a difference occurred between the Medical Society and the faculty of the Medical College, as a result of which the latter body organized a new college under the name of the Medical College of the State of South Carolina, which was chartered in 1834, and occupied the old Broad street theater. For the next five years both colleges continued in operation, but the new institution, which comprised the old faculty, was most successful and at the end of this time the Medical College of South Carolina passed out of existence by merging with the Medical College of the State of South Carolina. Up to the period of the Civil War the Medical College of the State of South Carolina enjoyed an enviable reputation and turned out a number of most distinguished graduates. During the Civil War the college was of necessity closed, but reopened its doors again in 1865, from which time it has been in continuous operation. In 1881 the old charter was amended by the State Legislature, so as to allow the creation of a department of pharmacy, which was organized in 1882. This department continued in operation for only two years, but was again reopened in 1894.

With the reorganization of medical education throughout the country effected by the Council on Medical Education of the American Medical Association, it became apparent that this old historic college could no longer bear the burden alone and would be forced to close its doors if it still continued as a proprietary institution. In 1913, therefore, the trustees and faculty offered the college to the State. Both Governor Blease and the legislature realized that such an offer could not be regarded lightly, and that a valuable institution should be saved to the State and given the opportunity to develop along modern lines and become even more useful than it had been in the past, and in February a bill was passed making the institution a State College in fact, as it had long been in name. Two months later the citizens of Charleston raised a fund of $76,000 for the purpose of erecting a new building in juxtaposition to the new Roper Hospital.

The Medical College, under the fostering care of the legislature, has taken on new life and with its faculty greatly enlarged, and equipment increased to meet the demands of modern medical training, has come again to occupy a position of the first rank among the medical colleges of the country.

The early faculty of the college included men of national and international reputation, and the brilliant attainments and reputation of its faculty attracted a large body of students from various sections of the country. From its organization the faculty have had in view the growing and changing requirements of medicine, and have been among the first to provide additional instruction to meet these demands. It was one of the first of Southern colleges to adopt a three-year course of study, and later to require a four-year course. It also took an advanced stand in adopting the higher entrance requirements now in force.

The work so eminently carried out by its distinguished founders has been continued by its present faculty and associates, and the laboratory and clinical instruction have kept pace with the exacting demands of modern medical teaching. There are 67 professors and instructors engaged in the teaching of the various branches, of whom 21 devote their entire time to college work. Among the number are graduates from various colleges representing a number of States, and men of wide reputation and broad scientific attainments. This breadth of training and variety of service and experience insures a comprehensive view point of the field of modern medicine, pharmacy and nursing and a knowledge of the methods of instruction and opinions of the leading medical and pharmaceutical centers of teaching and research.

The college is classified as a Class A college by the Council on Education of the American Medical Association, the Association of American Colleges and the American Conference of Pharmaceutical faculties. This means that in the opinion of these bodies the college is well organized and equipped for efficient medical and pharmaceutical instruction, that the college ranks with the leading medical colleges of the country, and that the students and graduates enjoy the same privileges as those of the large universities.

In 1918 the Roper Hospital Training School for Nurses became an integral part of the Medical College under the name of the School of Nursing of the Medical College of the State of South Carolina. The college now includes the three schools of medicine, pharmacy and nursing, and is looking forward to a future of continued and increasing strength and usefulness.

ORIGINAL ARTICLES

SOME OBSERVATIONS MADE IN THE TREATMENT OF THREE HUNDRED CASES OF HEMORRHOIDS BY THE INJECTION METHOD.

By Thos. Brockman, M. D., Greer, S. C.

As interpreted by the Greeks the term "hemorrhoids" means a passive or active flow of blood, and the word "pile" from the Latin pila signifies a ball or swelling.

HISTORIC NOTE—Hemorrhoids have an interesting history having been mentioned ten centuries before the Grecian Era or the time of Hippocrates, and it is said that "pile doctors" were in Egypt before Joseph was sold into bondage.

GENERAL REMARKS—Hemorrhoids are the most common affection treated by the Proctologist. Many persons go through life suffering from hemorrhoids without applying for treatment because an examination is repulsive, they cannot afford the expense of an operation, fear a general anaesthetic, dislike being confined to bed or dread discomfort and pain incident to their removal. Hemorrhoids often induce discomfort, pain, or hemorrhage, but I have never known of a patient to die from them. Piles are encountered in all climates and walks of life both sexes, at all ages, debilitated and robust individuals, persons following sedentary and active occupations, and people living amid luxurious and poor environments, but are more common during active periods of life. Hemorrhoids vary in form, location, number, size, color, consistences and appearance.

LOCATION—Hemorrhoidal tumors may be located in the lower rectum or just outside, at the anal margin, and are designated accordingly internal and external.

Read before the Fourth District Medical Association, Anderson, S. C., September 16, 1924.

ETIOLOGY

No attempt is made to discuss all factors in, or the many diseases said to have induced hemorrhoids. The causes of hemorrhoids are Pre-disposing and Exciting.

Pre-disposing—are hereditary, temperament, evironment, climate, seasons, habits, sex, occupation, age, and anatomic peculiarities of the bowels.

EXCITING CAUSES—The chief exciting factors in the causation of hemorrhoids enumerated in the order of their importance are constipation, diarrhoea, purgation, medication, dietary indiscretions, irregular and indolent habits, emotional disturbances, other anorectal affections, constitutional and diseases in neighboring organs, hypertrophy and spasm of the levator ani or sphincter muscles, warm enemata, pregnancy and parturition, friction, irritating suppositories, pessaries, anorectal injuries and habitual straining at stool.

CLASSIFICATION

Hemorrhoids according to their location and coverings are classified as follows:

FIRST, EXTERNAL—Visible-covered by skin.

SECOND, INTERNAL—Invisible-covered by mucous membrane.

THIRD, EXTERNO—Internal-combination-mixed-covered by skin and mucosa.

Hemorrhoids have been desginated by physicians, nurses of the laity as hard, soft, itching, weeping, protruding, bleeding, sticking, blind, inside, outside, red, blue and constitutional piles all of which fall within the above classification.

External hemorrhoids are for clinical purposes divided into venous and cutaneous types. There are two kinds of venous hemorrhoids, thrombotic and varicose; and cu-

taneous piles may be subdivided into redundant and hypertrophic forms.

EXTERNAL THROMBOTIC

ETILOLOGY—Thrombotic make their appearance suddenly during straining at stool, horseback riding, walking, violent exercise or lifting of heavy loads and are frequently encountered in young or middle aged robust individuals not having previously suffered from rectal trouble. This form differs from cutaneous piles in their sudden onset. acute pain, and quick disappearance.

PATHOLOGY—Some authorities claim that thrombi form within the vein and others without the vein. Gant says that he has demonstarted to his satisfaction that venous clots may form either in the blood vessel or collect in adjacent tissue subsequent to perforation or rupture of a hemorrhoidal vein or its off-shoot. Thrombi are comparatively rare within the vein and are most often encountered beneath the anal integument of individuals having phlebitis, sclerosis of vessels, or other disease that roughens or causes the internal coat to break. Where a thrombus is present in a vessel the tumor requires days to form, is small, rarely visable, and is not detected except through palpation. The chief argument against thrombi in the veins is they are not sufficiently large to accommodate the considerable amount of blood that distends the average thrombotic pile.

SYMPTOMS—Ordinary thrombotic hemorrhoids suddenly appear following the evacuation of hardened feces straining from any cause, or lifting a heavy load. In the beginning there is a pricking or uneasy sensation at the anus, later as bleeding continues, the clot enlarges, skin tension is increased and the patient complains of pain, swelling and annoying sphincteralgia. Acutely inflamed tumors are hypersensitive and cause considerable pain, sphincteric irritability, constipation, painful defecation and prevent the sufferer from obtaining rest or sleep in any position.

Treatment of thrombotic hemorrhoids is Surgical. Time is not wasted with palliative measures. Surgical intervention is not objectionable because elaborate preparations are unecessary, the operation is painless performed in five minutes under eucain or novocain anaesthesia, does not confine the patient to the house, post-operative pain is slight and a prompt cure invariably follows incision and evacuation of clot.

External Varicose piles—cause but little annoyance and are rarely recognized or treated except when associated with some other disease.

External cutaneous piles are removed under local anaesthesia in the office. They are nothing more than connective tissue or skin tabs easily excised with scissors.

INTERNAL HEMORRHOIDS

Internal hemorrhoids are common and the majority of adults suffer from them before they reach their fiftieth year. They are found more often in men than women and rarely seen in children. They are common in all countries and climates, met with in different races, attacks persons in all stations of life and those following sedentary and active occupations and affect robust or debilitated individuals with equal frequency.

Internal hemorrhoids cause annoyance or considerable mental and physical suffering when they bleed, protrude or become ulcerated or strangulated, but seldom terminate fatally unless they degenerate into cancer or ulcerate into a large vessel and bleed copiously, causing anemia, exhaustion or death which occurs more often than the profession is aware of.

Many individuals affected with internal hemorrhoids are but slightly inconvenienced, and in consequence defer examination and treatment for months and years. Venous internal hemorrhoids may be arterial, venous or mixed, globular, tortuous or oblong in shape, vary in number from one to seven, have a bright red purplish or bluish tint, remain above the sphincter, or protrude through the anus, and have a slightly pedunculated or broad attachment.

There are three types from a clinical view point, thrombotic, capillary and venous or mixed. The internal thrombotic are rarely

seen and resemble external thrombotic and are treated alike.

The capillary type are of less significance and will be referred to again.

The internal venous or mixed type are our chief offenders to the mass of humanity . The chief manifestations of varicose internal hemorrhoids are protrusion, hemorrhage and pain, and one or the other causes the patient to seek relief. Patients usually do not discover piles until they protrude or bleed or give pain at stool. The pain, hemorrhage, and protrusion often go hand in hand with a gradual increasing discomfort and finally to the stage of failure to recede strangulation results. I have had several robust, young active men and women come to me in this condition and with torture and distress written all over their features with a history of several days and nights of this suffering and the use of all kinds of local applications such as heat, salves, morphia and no relief. Quite a number have the daily dread of this strangulation, the inability to attend business engagements if they were so unfortunate as to have to go to stool in the early morning. The shock brought about from the ordeal from reducing these strangulated piles would so completely exhaust their nerve force, until all work and pleasure was arrested for a day in bed.

So much for symptoms, classifications and etc., because the most interesting feature of this subject to both you and me is the method, the remedy, the cure. The higher ideals of medicine are constantly and ever stimulating all of us to try and master infirmities and diseases, and no set of men are more honestly and earnestly seeking knowledge and improvement of methods than are medical men. Unfortunately very often all of us are held back and kept from advancing by misguided or prejudiced views, and especially is this true in so far as the injection method of treating internal hemorrhoids. No doubt there are many who are doing lots of harm and are now doing harm with some poison solution some sloughing solution but to my mind there is no part of my work in the general practice of medicine for fifteen years that has been as satisfactory to me and the patient as the injection method of treating hemorrhoids has been for the past eighteen months. The technique is very simple and absolutely safe. I use two sizes of an ordinary Brinkerhoffs sliding door speculum and a long gold pointed needle with a guard very similar to a tonsil needle, and inject high up, say two inches, from five to fifteen minims of a five to nine per cent quinine and urea hydrocloride solution, or a ninety five per cent alcohol solution or an eight per cent phenol with two per cent alcohol in essential oils. The technique consists in the simple process of introducing the speculum on right side first with patient lying in left Sim's position and of slowly withdrawing the sliding door for about three-fourths of an inch. The internal pile will drop into this space and from five to fifteen minims are injected into the base of the pile tumor. This procedure is followed on left, front, and back. The injections are repeated from five to seven days for at least four consecutive injections at which time the patient is instructed to come back within two to four weeks when further injections are made if needed. Out of three hundred patients who have come to me for treatment in the last eighteen months I have used the last named solution in about sixty per cent of the cases; the solution of quinine and urea in about thirty per cent and a ninety five per cent alcohol in ten per cent of the cases. I find all three solutions to have their special field in the rectal injection of piles.

The varicose or venous type of piles responds more satisfactorily to the phenol and alcohol solution. The strangulated piles calls for quinine and urea hydrochloride 9 per cent solution for its anaesthetic effect. The capillary or strawberry type of piles seen more often in what I have termed in the border line T. B. cases or Pellagrins, responds best to alcohol injections. The mixed interno-externo type do best under an

alternative treatment or first the phenol solution then the quinine and last the alcohol, but due to the frequency of protrusion through the external sphincter in this type I invariably advise a local anaesthetic of which can be quickly and easily performed with novocain or eucain solution. Everything is not flowery beds of ease in all forms and cases of piles, but the larger per cent of my patients tell me that the discomfort incident to the injections is no worse than those of piles without treatment and in many instances they report they have felt better with each injection with no bleeding nor protrusion since the first injection. Others have reported some slight discomforts for the first day and night. Very few have discontinued the treatment because of pain and inflammation produced. And invariably this has always occurred in the interno-externo or mixed type of piles. This treatment is not an experiment but a demonstration. The merit of this method of treatment lies in the composition of fluid used and the adaptability of proper fluid to diseased tissue and the technique of administering not too large nor too small an injection as the case may be. In other words, we are striving with this method of treatment to create a subacute inflammation and cause a re-attachment of the lining or mucuous membrane of the gut to the rectal wall. Naturally the success of the treatment depends entirely on our knowledge and understanding of when this subacute inflamation is sufficiently produced to cause a healing process to take place and then to quit and rest and allow nature to repair and heal. I believe any mild fluid injected too heavily and persistently will produce harm and probably sloughs should we not observe care as in any other line of medical skill. May I ask how many cases of incontinence are brought about by the amateur surgeon and sometimes by the best of surgeons from doing some of the various forms of pile operations such as Whitehead's for instance. When we doctors throw down all of our prejudice against the injection method of treating hemorrhoids and devote as much of our time to a conscientious and honest effort in treating this malady as we have in many of the other lines in medicine and surgery we will all be elated over the results. There surely is not a more neglected field in medicine or surgery. There certainly cannot be as much confusion and lack of understanding about any other part of our anatomy.

Why allow the advertising quack to inject fifty per cent carbolic acid or other sloughing solutions when we go on cursing the pile doctor with no other honest effort except surgery. Surgery is all right and a local anaesthetic operation is quite attractive and should be done often to those who are willing to have it done, but to those who refuse the knife and are fearful of the knife must we allow them to go on bleeding and suffering without any relief? If all the merits of the injection method of treating piles should be wiped out in the young and middle aged I would commend it to the profession for the exclusive benefit of the old man who has been bleeding and protruding and wearing his pads and supports for fifty years in order that I might give him a little taste of real high life in that he could enjoy a few real normal healthy bowel movements in his last days.

NOTES ON THE PROGRESS OF THE SCIENCE OF NUTRITION

By William Weston, M. D., Columbia, S. C.

The literature that has grown up in the last few years relative to problems in the science of nutrition has been of such vast proportion that those who have attempted to keep themselves informed have met with a truly bewildering task. Fortunately for those who were determined to pursue the subject, their diligence and perseverence has been abundantly rewarded by having learned of some of the most brilliant and specta-

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cu'ar discoveries yet recorded to the achievement of science.

Investigators have studied the subject from many points of view in their effort to learn the true value of foods and their relationship to the vitamins, the glands of internal secretion, and the role each assumes to each other and to the science of nutrition. Many important facts have been learned from time to time, but it has taken time to correlate them into a homogeneous mass for practical use.

The difficulties confronting investigators in this field of science have been enormous, because of the manifest limitations of other sciences.

Hardly had serious investigations begun before the limitations of chemistry became an embarrassing reality and investigations had to proceed along other lines. Despite the new methods introduced in physiological chemistry in the effort to explain facts repeatedly demonstrated this science has found itself unequal to the opportunity presented. Histology has had to be studied from a different point of view and from an altogether broader field. Bacteriology has been given new and difficult tasks to work out. There has been added to the study of pathology much new and interesting material of an altogether different nature from any previously undertaken.

In fact, problems presented by the various investigations of faulty diets were so involved that it soon became evident that their solution could not be accomplished by any single science, but rather upon the co-operation of the several sciences. This conclusion having been reached and its application put into effect, the science of nutrition has become, of all the sciences, the most interesting, the most important and the one most likely to achieve the ultimate object of all scientific investigation, namely to give man the control over the laws of nature.

The so-called fundamental nutrients; fats, carbohydrates, proteins and mineral salts have been studied by chemical methods for more than a hundred years, during which time there was a great deal learned. Within the last few years since the adoption of new methods of investigation and the introduction of new material, such as the vitamins and the influence of some of the endocrine glands, many opinions formerly held have had to be revised or given up. Especially does this apply to the fats, proteins and mineral salts.

The fats differ as to food value. Some are almost worthless while others are not only valuable but are indispensable for the maintenance of health. We have been taught for many years that fats are the most important scource of energy to the body, that they save the body waste and increase the body weight. We know now that this statement must be qualified, because, some do not contain the fat soluble A vitamins, without which health cannot be maintained. If hog lard in unlimited quantity were the sole source of fat in a given diet, the person to whom this diet was given would soon die from malnutrition or some intercurrent diseases.

Protein is essential to life, because, it is the only kind of food capable of replacing the nitrogenous waste of the body cells which is constantly taking place. It is also an important factor in the promotion of growth, but by no means as important as physiologists formerly thought. The value of a protein is determined by the number and variety of amino-acids it yields on digestion. The more nearly these proportions correspond to the content of amino-acids in the tissues of the growing animal, the more effectively can food proteins be transformed into body proteins.

It has only been known a comparatively short time that there exists such a great variation in the composition of proteins from different scources. Some do not contain any amino-acids, others a few, while others may contain many.

Of great practical value was the demonstration by Osborne, McCollum and others, that the protein mixture found in such common foods as the grains, tubers, meats, etc,

may be regarded as biologically complete, but their biological values differ greatly depending on the yield of the several amino-acids obtained from them. Therefore, since it is known that there are eighteen or more amino-acids, it is important in order to obtain this requisite of life in ample quantity and quality it is necessary to consume a number of such proteins as are known to be rich in amino-acids.

Investigations made in the study of nutrition has revealed valuable information in regard to the mineral salts. It has been known for many years that certain mineral elements in sufficient quantities are essential to normal functioning of the tissues. We have also known that the bones consist in a great part of calcium, phosphate and magnesium. Calcium salts are responsible for the coagulation of the blood and are vitaliy concerned in the digestion of fats. Free hydrochloric acid in the stomach without which pepsin cannot in the process of digestion act upon protein is derived from sodium chloride, an element obtained from the food we eat.

The element sodium is also present in the blood in considerable quantities, in the form of bicarbonate, carbonate and phosphate. These salts with calcium, magnesium and potassium in delicate proportion in the plasma of the blood are necessary in order to take up and neutralize the acids formed during metabolism, and aid in maintaining the body fluids in a state of neutrality which is a fundamental condition of life.

The alkali balance in the blood plasma is necessary in order to carry carbon dioxide to the lungs for elimination. When the alkali reserve falls below normal or the balance becomes disturbed the kidneys fail to excrete acid phosphate and there ensues that much misunderstood and very grave condition—acidosis. This condition is unknown in children who receive an adequate supply of vegetables and fruit juices in their diet.

In no other way than by the diet can the mineral salts be supplied to the system.

As important as are the elements just considered investigations by a host of scientists in this country and abroad have definitely proved that normal nutrition requires and natural food supply furnishes other elements without which there can be no such thing as nutritional well being. If withdrawn for a time disease ensues, if for a considerable length of time death results. The generally accepted name for these elements are vitamins. We do not know their chemical structure, but we know a great deal about their action and the sources from which they are supplied.

The classifications of vitamins will in all probability be materially changed in the near future by the addition of other vitamins. At present the generally accepted classification is as follows: Fat soluble A., Water soluble B., and antiscorbutic C.

Fat soluble A. It has recently been demonstrated by Goldblatt and Zilva of the Lister Institute in London that the growth-promoting and anti-rachitic properties of cod liver oil are inactivated at different rates by heat in the presence of air. McLendon and Shuck of Minnesota, have within the last year demonstrated that spinach when fed to animals suffering from Xeropthalmias effected a cure, but had little or no remedial effects on rickets.

These experiments would indicate that there exists more than one fat soluble A. vitamin.

The chief function of the fat soluble A. vitamins are to promote growth and exercise a stabilizing influence over the mineral salts.

They appear also to exercise an important influence over reproduction and lactation.

These vitamins when insufficiently supplied tends to weaken the body and make the individual more susceptible to such diseases as tuberculosis, rickets, pellagra and renal calculus. Its absence is directly responsible for a disease of the eyes known as Xeropthalmia.

As important as the fat soluble A. vitamins are to the adult in preserving good

health they are more important to the child since they are essential to growth and development. They are vitally concerned in determining the time of dentition and the character of the teeth.

Fat soluble A. vitamins are not synthesized in the body, but may be stored in the body for a considerable length of time. They stand long exposures to high degrees of heat, but are quickly inactivated by oxidation.

The fact that they are not inactivated by high degrees of heat has an important bearing upon the feeding of butter fat to infants and young children, because, much more butter fat can be given if it is boiled and the fatty acids eliminated.

A great variety of foods are sources of these vitamins, among the more important are: cod liver oil; butter; kidney; liver; alfalfa; spinach; green cabbage; string beans; wheat; whole grain of rice; carrots; milk; cheese and egg yolk.

Vitamin B. at present includes: First, the antineuritic vitamin found by Eijkman in rice polishings and later by others in a great variety of animal and vegetable substances, the absence of which causes polyneuritis in fowls and beriberi in man: Two, a water-soluble, growth-promoting substance found in milk, wheat embryo, yeast and many other foods.

This vitamin is essential to normal nutrition and when deficient or absent health steadily declines. Animals deprived of this vitamin quickly lose their appetite and in the young fail to grow.

It is claimed by investigators to be an important physiological stimulant to glandular metabolism. It is also said to be concerned in the metabolism of carbohydrates.

It is readily soluble in water and may be absorbed from solution by fuller's earth. It is relatively stable to heat and oxidation, and is more stable in acid than in alkaline solution.

Its chief sources of supply are the grains, nuts, certain fruits, tomatoes, grape fruit, lemon and orange, nearly all the vegetables, yeast, milk and its products, fish and fish roe, brains, heart, kidney and liver.

Vitamin C. This vitamin when absent from the diet produces the symptom complex which we recognize as scurvy. It seems also to exercise an influence over calcium metabolism, since its absence from the diet results in various forms of hemorrhage. When present in the food of young animals it promotes growth and well-being. Its presence in the food of animals for all ages is necessary to health and life.

High temperature for a short while is less destructive to this vitamin than pro longed exposure to a moderately high tem perature for a long period of time. Contrary to the popular impression neither acid nor alkali lessens the destructive influence of heat upon this vitamin.

It is well known that such antiscorbutic foods as tomatoes, orange juice and lemon juice have a high initial acidity retain their antiscorbutic property to a much higher degree when dried than does cabbage or potato which are less acid.

The question is constantly arising whether the process of drying milk destroys or impairs its antiscorbutic properties. This depends upon the drying process. If the milk is dried by the just roller process, a method by which the milk is quickly dried, there does not appear to result any deterioration.

The presence and quantity of this vitamin in milk will depend upon the diet. If food is eaten that is rich in vitamins the milk will be correspondingly valuable in this respect.

Chief sources of supply: Cloudberries, raspberries, lemon and orange juice, cabbage, tomatoes, carrots, beans, legumes, lettuce, onions, swede, rutabaga, and sprouted grain.

There has been a great deal of discussion as to the relationship of the glands of internal secretion to nutrition. There have been many theories advanced from time to time, many of these remain unproved or have been definitely disproved. The opinion has been generally accepted that the thy-

roid exercises a definite influence upon metabolism.

The parathyroids seem to exercise a decided influence upon calcium metabolism.

Cramer, a British investigator, contends that there is a constant relationship between the "glandular" adipose tissue and the adrenal cortex. He suggests that the "glandular" adipose tissue is a reservoir of fat soluble A. vitamin, since the disappearance of the characteristic lipins from it and the adrenal cortex is followed by death.

It is scarcely necessary to remind you of the great benefit this new nutritional knowledge has brought to people of meagre means in supplying them with information that will readily enable them to select foods at reasonable cost that are known to contain such elements as are necessary to conserve health and produce vigor and strength.

It has only been a comparatively short time since the foremost authorities in pediatrics taught that a mother's milk was not directly influenced by her diet. At present we know that not only the quantity but the quality of her milk depends entirely upon her diet. Moreover, we now know that the supply may be bountiful, it may contain the requisite amount of fats, carbohydrates, protein and salts and still be deficient. In fact under such circumstances a child depending upon such milk may develop rickets or scurvy. This deficiency can only be supplied by diet.

The absurd notion still prevails that in the selection of cow's milk its nutritional value is determined by the percentage of butter fat present and its index of safety determined by the number of bacteria per c. c.

What are the facts as proved by scientific investigation? 1st: The relative value of butter fat is determined by the amount of fat soluble A. vitamin present. If the butter is originally yellow it will contain a large amount of this vitamin and if originally white it is poor in this element. The color is not a factor in determining the fat percentage. It is manifest that this test does not take into consideration the relative amount and value of protein, nor does it consider the salts, although of the utmost nutritional importance. The only possible manner that these facts may be ascertained is by knowing the quality and quantity of food the cow eats. 2nd: We have learned that prolonged heat at a temperature of 150 degrees F. such as is required for the pasteurization of milk is more destructive to the vitamins than is a temperature of 212 degrees for two or three minutes. The latter method is probably more destructive to bacteria than is pasteurization.

The reason why a child after the first year does not continue to thrive when the sole article of diet is milk, even though of excellent quality and sufficient quantity, is because of its deficiency in iron.

This deficiency must be supplied from the vegetable kingdom.

Hominy (grits) served with butter is the cereal of choice in this part of the country. The choice may or may not be wise. If the hominy is from yellow corn it will possess about twice the value of hominy from white corn. If the butter is to be served to a child a great deal more may be safely used if the butter is placed in a covered vessel over a flame for thirty seconds and the fatty acids allowed to escape.

Certain vegetable juices are of great value during the second year and thereafter, as a source of protein, vitamins and mineral salts.

Green cabbage, spinach, alfalfa and carrots are especially valuable, but if boiled in the presence of air they lose much of their value.

Cereal grains while containing every organic element found in the animal body, and every one which is a necessary component of the diet, on account of too small amount of the chlorides of sodium, potassium and calcium to promote growth may also cause acidosis by not furnishing to the blood stream the necessary amounts of mineral nutrients required for normal nutrition. Therefore, as important and valuable as are these

foods they should not be depended upon unless taken in conjunction with vegetables.

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THE DIAGNOSIS AND TREATMENT OF PLACENTA PREVIA

By Lester A. Wilson, M. D., Charleston, S. C.

A hemorrhage in the latter months of pregnancy or during the first or second stage of labor is one of the most formidable conditions that an obstetrician has to deal with. Where there is such a hemorrhage, one can expect to find either a premature separation of the placenta or a placenta previa. Other causes of antepartum hemorrhage are Ectopic gestation, ruptured uterus and cervical laceration. However the last named condition can usually be eliminated without difficulty.

Occasionally a typical placenta previa is seen in which the diagnosis is made by such symptoms as painless, causeless hemorrhage, bright red in color and if observed closely may be found to increase between the pains and to almost cease during a pain. This bleeding may occur while the patient is up and walking about, or sometimes occurs at night while she is asleep only to awake and find herself drenched with blood.

The placental souffle in some cases is heard just above the symphysis pubis. On vaginal examination the cervix and fornices are boggy, pulsation is increased and a

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cushiony mass can be felt between the examining finger and the presenting part.

In premature separation of the normally implanted placenta, the symptom complex is different. The patient is usually a multipara, at or near term with a history of toxemia, high blood pressure and albuminuria, which predisposes, by the formation of placental infarcts to placental separation, or perhaps there is a history of trauma as for instance a kick, a fall or severe straining. With the onset the patient experiences a sudden uterine pain at the placental site, nausea and shock, rapid pulse and a fall in blood pressure in proportion to the amount of blood that has been lost.

Abdominal examination reveals a hard but tender uterus, or if the bleeding has been excessive the uterus may be flaccid and filled with retained blood, the foetal parts obscure and the foetal heart sounds labored or absent, the hemorrhage if visible is dark and clotted, or perhaps just a serum.

In view of the fact that the symptoms of premature separation and placenta previa have so much in common, pain may be present in a previa when in labor, or the blood may be clotted when seen by the obstetrician, while in a premature separation the hemorrhage can be a bright red, or the pain absent. Leaving but one method of making a positive differential diagnosis in a fairly large percentage of cases, this is by vaginal examination. Here one finds the placenta situated in the danger zone or lower segment of the uterus, a blood clot situated in the cervix feels to the examining finger very much like a placenta but differs in that the placenta is tough and will not disintegrate or tear as a blood clot will. If the foetal surface of the placenta can be reached with its smooth surface on which radiate the numerous veins the diagnosis is easy. In those cases where the placenta cannot be palpated and where there is an escape of serum when the presenting part is raised, the diagnosis of premature separation is justifiable.

I would like to warn you not to make a vaginal examination until the patient is in a hospital, the vulva shaved and painted with Tr. Iodine, preferably anesthetized and instruments ready for immediate treatment, for in the majority of cases, a vaginal examination will produce another hemorrhage and one that may be fatal. This accident has occurred to me, the hemorrhage starting a few minutes after I had finished the examination.

Infection is a frequent complication. Especial care should be exercised not to infect the patient before she reaches the hospital. Do not pack in the home unless it becomes absolutely necessary.

A correct diagnosis is important because the objects to be carried out are opposite. A previa if delivered by the natural route requires a slow dilatation of the cervix to prevent laceration, and the conservation of blood at every step, while a separation must be delivered quickly if the patient is to be saved.

The treatment of placenta previa is necessarily heroic, as the mortality with the best treatment is for the mother 12 per cent, and for the child 60 per cent.

It is generally conceded that there is no expectant plan of treatment for placenta previa. Once the diagnosis is made the patient must be delivered, if not in labor, she should be induced. Except in rare instances where a viable child is especially desired, as an old primiparae one might temporize a few days when the child is near viability, provided the mother consents to remain in a hospital where immediate treatment can be instituted should the hemorrhage return.

In the central type where the cervix is not dilated and the genital tract not infected, abdominal cesarean is the operation of choice. The advantages of this plan of treatment are first, the terrible infant mortality is reduced, second, the loss of blood is not so great, and third, if the hemorrhage cannot be controlled after delivery a hysterectomy can be easily performed. One must bear in mind that the danger is not over

when the patient is delivered. In those cases of previa caused by a membranous placenta, which is spread over a greater part of the uterus, a hysterotomy followed by a hysterectomy is especially indicated.

The marginal and lateral types with the cervix effaced and dilatable can best be treated by means of a placenta previa bag (No. 6 Voorhees). This is placed either within the bag of waters or better still extra ovular, which Polak of Brooklyn describes in a recent article; the bag is placed between the membranes or placenta and the cervical walls. I have had good results with extra ovular insertion of the hydrostatic bag. The foreign substance pressing against the bleeding sinuses seems to cause clotting in them, thus lessening the danger of postpartum hemorrhage. Further if the membranes are not ruptured the infant has a better chance. In either method after the bag has been placed and filled gentle traction should be maintained upon it, so as to keep a constant pressure against the bleeding points. The cervix must be allowed to dilate slowly, but just as soon as it is fully dilated, a rapid delivery is necessary. For this purpose I prefer an internal podalic version. Forceps could be used but takes more time and the hemorrhage here is often torrential.

There are other plans of treatment, and all of them have their advocates.

Braxton Hicks or bipolar version is very good if successfully performed, the operation is difficult and the infant mortality is high.

Packing; the pelvis must be packed tightly, it does not always control the hemorrhage and the danger of infection is increased.

Rupturing the membranes will sometimes temporarily arrest the hemorrhage until more rational treatment can be instituted.

DISCUSSION

DR. G. FRASER WILSON, (Charleston):

Placenta previa is a condition that we all pray we may never meet, and we meet it when we are least looking for it. We have had three placenta previa cases in the last thirty days. If I had my way I would have every doctor in South Carolina write on the walls of his office that painless bleeding means placenta previa almost always. Just as soon as you realize that the woman must be delivered immediately—as soon as you make your diagnosis. The blood she loses plus the blood she must lose is more than sufficient to take her life.

There are many methods of attack in placenta previa. I agree with Doctor Wilson on Caesarean section. My results with Caesarean section in placenta previa are 100 per cent. for the child and almost as good for the mother. The more experience you have with placenta previa cases the better your results will be. I have not lost a placenta previa case in a year, and I must have had twelve or fourteen cases. As to the use of the bag, I have only used it two or three times. There is the danger of an accumulation of blood behind the bag as it comes out of the cervix, and must examine the woman every two or three minutes to be sure the bag is not coming through the cervix. Second, when the bag is ready to come through, take it out and go in and do a rapid podalic and put the forceps on. The life of the baby means absolutely nothing to me in the treatment of placenta previa.

In closing I want to tell you men that one of the results of placenta previa is operative injury of the cervix, strange as it may seem. You think the woman is going to bleed to death, but I want to correct that impression. She will not bleed to death unless you have a laceration because you have better contractions and retractions with placenta previa than almost any other condition after delivery that I know of. Fortunately, the uterine artery comes in above Bandl's ring and these women can be saved because the blood is cut off and they will not bleed. But if you do not wait until the cervix is dilated before you attempt to deliver the baby you will get a tear, and if you have a tear into these enormously dilated blood vessels you will not be able to control the hemorrhage.

Remember that painless bleeding means placenta previa. Also that every toxic pregnant woman is a possible bleeder and you will have a prematurely separating placenta. Practically all of these are associated with diagnostic symptoms, and they are very apt

to bleed. I believe there are more premature separations of the placenta than we have any idea of, and the important thing is not to lacerate the cervix in the treatment of placenta previa.

BLOOD CHEMISTRY

By C. C. Craft, M. D., Florence, S. C.

The determination of the chemical composition of the blood, especially the non-protein fraction, was for many years very difficult and it is only in recent years that a body of American investigators have elaborated methods which have enabled us to get accurate data. Folin, Van Slyke, Benedict and Myers are mostly responsible for our present knowledge of blood chemistry and for the practical information which their methods have made available. They very early discovered that the determination of the non-protein nitrogen gave us very valuable data on just those conditions on which the older methods of blood examination gave little information. I refer especially to such constitutional conditions as nephritis, diabetes and gout.

In addition, however, the chemical blood examinations have given us data which has changed our viewpoint regarding such disorders as renal diabetes, infantile conditions such as tetany, diarrheal acidosis and in eclampsia, malignancy, pernicious anemia, disorders of the ductless glands and various urologic conditions.

Before we begin to discuss figures which are considered pathologic it might be well to state what we consider the normal findings for uric acid, urea nitrogen, creatinine and blood sugar. I purposely leave out the determination of the total non-protein nitrogen because, in my opinion, the determination of its individual components gives us more reliable information both in diagnosis and prognosis. Uric acid normally ranges from 2 to 3 mg. to 100 c. c. of blood, urea nitrogen from 12 to 15 mg. to 100 c. c., creatinine from 1 to 2 mg. to 100 c. c. and blood sugar from .09% to .12%. While it is difficult to draw an arbitrary line and say that all on one side is normal and on the other side is pathologic yet it is believed safe, when the blood is taken after a fourteen hour fast, (in the morning before breakfast) to regard a uric acid above 3.5 mg. to 100 c. c., urea nitrogen above 20 mg. to 100 c. c., creatinine above 2 mg. to 100 c. c. and a blood sugar of over 0.15% as definitely pathologic.

Having stated what we consider normal and pathologic findings let us turn our attention to those pathologic states where we expect blood chemistry to be of benefit to us either in diagnosis, prognosis or treatment. The first of these conditions I want to mention is.

RENAL DIABETES

In this condition the blood sugar is perfectly normal and without a knowledge of the blood sugar the condition could never be diagnosed. The people afflicted with a harmless glycosuria are few in number yet if we depend entirely for our diagnosis of diabetes mellitus on an examination of the urine alone we are going to overlook even these few cases. In renal diabetes the point of sugar excretion is below the level of the normal blood sugar. There is no hyperglycemia. It should be noted that a mild glycosuria and often a slight hyperglycemia appear to be associated with parenchymatous nephritis. The hyperglycemia, however, is quite without influence on the glycosuria. Determination of the urea nitrogen of the blood, renal function test and glucose tolerance test will usually clear up the diagnosis. In this connection I recently worked on with my colleague Dr. Smyser, a very interesting case. This gentleman was admitted to the hospital for a minor operation. Routine urine examination revealed 2.0% of sugar. The morning after admission his urine was free of sugar and a blood sample taken at that time showed 0.22% of sugar. He was immediately given 100 grams of

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glucose and the test ran as follows:
Time after ingestion glucose.

	Blood sugar	Urine sugar
One-half hour	0.21%	2.0%
One hour,	0.17%	2.9%
Two hours	0.15%	4.3%

Note that the highest blood sugar occurred when the urine was sugar free. Renal function test showed 49% of the dye eliminated at the end of two hours. Blood uric acid was 4.4 mg. to 100 c. c. of blood, urea nitrogen was normal. The chloride content of the blood was not determined in this case.

DIABETES MELLITUS

In this condition our examination is first directed to the determination of the blood sugar, although the alkali reserve, as indicated by the CO2 of the blood may assume greater significance if the case is admitted with an advanced acidosis. Dr. Myers says, "In this disease the most important thing to remember is that the excretion of sugar by the kidney is simply one of the body's many factors of safety." The sugar cannot be utilized hence it must be gotten rid of. The condition to which our attention should be directed is the hyperglycemia and as the disease advances the excretion of sugar in the urine is not a safe criterion of this since the permeability of the kidney seems to be lowered. In early diabetes we notice a glycosuria when the sugar in the blood rises above 0.16 to 0.17% but in advanced cases, showing nephritic symptoms, blood sugar values as high as 0.3% may be noted before the appearance of glycosuria. If we neglect the determination of the blood sugar in our diabetics we cannot get the information we need either in diagnosis or treatment.

Our routine when a diabetic is admitted to the hospital is to find out as nearly as possible the diet the patient has been getting and with a knowledge of the amount of sugar being excreted a very rough idea of the patient's tolerance is obtained. The morning after admission, in the absence of contraindications, a glucose tolerance test is run and in a few selected cases I have given a second dose of glucose at the end of the second hour to test if the pancreatic substances, mobilized by the first dose, were sufficient in quantity to prevent a second rise. The diastatic activity of the blood has also been determined in some cases but the results were not sufficiently uniform to give me much information. With the weight, height and sex of the patient known we figure the basal maintenance diet. By making use of the diabetic diet chart of the Mayo Clinic it is very easy to get the correct ketogenic-antiketogenic ratio. If the patient does not become sugar free on the basal maintenance diet in from three to five days the determination of the amount of sugar excreted in twenty-four hours gives us the data for regulating the dose of insulin. Fortunately, so far, we have been able to send all of our patients home, sugar free, without insulin but in some cases on a very restricted diet. The following characteristic cases from our series I think will be of interest.

Mr. D. M. was admitted to the hospital February 13, 1923. The next morning, after a fifteen hour fast, his blood sugar was 0.27%, urine sugar 4.35% acetone and diacetic acid negative. His blood and urine sugar rose in one-half hour after ingestion of 100 grams of glucose to 0.45% and 5.6% respectively where they remained until the end of the third hour. His blood disastatic activity was 28. He had no tolerance for carbohydrates, refused to take insulin, so I was forced to put him on practically a starvation diet and allow him to go home. He returned at monthly intervals until July 1923 but in spite of the fact that his urine remained sugar free his blood sugar was persistently above 0.2%. He lost much weight, was very weak and was much discouraged but he persisted in the treatment and in February 1924 his blood sugar was 0.13%. He is now able to eat sufficient to regain some of the lost weight and to give him strength for light work. The point I want to stress is this. Blood sugar determinations should be made on all diabetics at monthly intervals and our efforts should

be directed to bringing the blood sugar down to a normal level. I do not believe a diabetic is doing well when the blood sugar is persistently above 0.17%.

The other case I want to mention is Mrs. A. R. The morning after admission her blood sugar was 0.34%, urine sugar 3.33%, acetone four plus. One hour after ingestion of 100 grams of glucose the blood sugar was 0.54%, urine 3.33%, acetone negative. The second hour her blood sugar was 0.58%, urine 4.0%. At the end of the second hour I gave her 50 grams additional glucose. The third hour determination showed that the blood sugar had dropped to 0.53% but the urine sugar had risen to 5.0%. It will be noticed that the second dose of glucose caused no secondary rise in the blood sugar. I have no explanation for this but I have noticed that all of my patients who failed to show a second rise in the blood sugar following the extra glucose have proven to be very easy to get sugar free. Mrs. A. R. left the hospital in eighteen days on a diet more than sufficient to maintain her and her first trip back to the hospital revealed a normal blood sugar.

GOUT

In our experience the determination of the blood uric acid is of much benefit in the diagnosis of gout but only when taken into consideration with the clinical symptoms and other laboratory findings. A knowledge of the blood uric acid has been of most benefit to us in those cases complaining of indefinite pains where no focus of infection could be found to account for the symptoms. These patients go the rounds of the doctors, have perfectly good teeth pulled, normal tonsils removed, and I have in mind one lady who went to Hot Springs and returned without benefit. A blood chemical examination revealed a high uric acid and atophan and alkalis have given her complete relief. In those cases of pains in the joints or muscles, where infection is ruled out, a determination of the blood uric acid should not be neglected. Very soon after I became engaged in this line of work a young physician consulted me for excruciating pains in the muscles of his back in the lumbar and sacral regions. His blood uric acid was 17.0 mg. to 100 c. c. of blood. Diet, atophan and alkalis gave him almost immediate relief although his uric acid did not return to normal for nearly three months.

PROSTATIC OBSTRUCTION

The blood urea nitrogen has been found to be a very valuable preoperative prognostic sign in these cases. Where the findings are 25 to 30 mg. to 100 c. c. the case should be operated on with caution. If the findings are above 30 mg to 100 c. c. renal involvement is indicated and the case is a poor operative risk. Some months ago we had two cases of prostatic obstruction admitted to the hospital in one week. The first case, a white man, had a blood urea nitrogen of 17.0 mg. to 100 c. c., was operated on and made an uneventful recovery. The urea nitrogen on the second case, a negro, was 68 mg. to 100 c. c. This patient died the fifth day after admission without operation.

NEPHRITIS

In comparing the partition of the non-protein nitrogenous constituents in the blood with the similar partition in the urine we note the following:

In the urine 85% is urea nitrogen.
In the blood 50% is urea nitrogen
In the urine 1.5% is uric acid
In the blood 2.0% is uric acid.
In the urine 5.0% is creatinine.
In the blood 2.0% is creatinine.

In the blood the percentage of uric acid nitrogen is greater than in the urine, the urea is definitely lower and the creatinine is very much lower. This comparison brings out the difference between the ability of the kidney to excrete uric acid on the one hand and urea and creatinine on the other. The kidney normally concentrates the creatinine 100 times, the urea 80 times, but the uric acid only 20 times. As the permeability of the kidney becomes lowered in conditions of renal insufficiency this becomes evident first by a retention of uric

acid, later by that of urea and lastly by that of creatinine. The creatinine is the most easily eliminated of these three nitrogenous waste products, uric acid is eliminated with most difficulty, while urea occupies an intermediate position. I think it is accepted that all cases of early chronic interstitial nephritis are accompanied by an appreciable rise in the blood uric acid but that the blood urea nitrogen can probably be taken as a safer sign of impaired kidney function. It is certainly true that the urea nitrogen falls within very narrow limits for perfectly healthy individuals. The creatinine being more easily eliminated by the kidney than either uric acid or urea does not begin to show an increase until the urea nitrogen has doubled or more than doubled. Creatinine figures of over 3.5 mg. indicate serious impairment while figures over 5.0 mg. means that no permanent improvement is to be hoped for. The exceptions to this rule are acute renal conditions and mild bichloride poisoning. I wish to refer to two characteristic cases which will illustrate the value of blood chemical findings in suspected nephritis.

On Dec. 17, 1922, Mr. J. W. D., 37 years old, was admitted to the hospital suffering with a slight paresis of the right arm. His systolic blood pressure was 214. Urine showed slight trace of albumin and a few hyaline casts. Blood chemistry findings were, uric acid 4.8 mg., urea nitrogen 37.2 mg. creatinine 5.5 mg. Excretion of dye in renal function test was 45% in two hours. On Dec. 25, 1922 his blood uric acid was 4.0 mg., urea nitrogen 32.8 mg. and creatinine 4.0 mg. which denotes definite temporary improvement. Jan. 27, 1923, 25% of the dye was excreted in two hours in the renal function test and his blood findings were as follows: Urea nitrogen 26.0 mg., creatinine 4.6 mg. He moved away in Feb., 1923, but I heard from him in Dec., 1923 and he had not improved. Judging from his blood findings I am sure he will make no permanent improvement and an early fatal termination is to be expected in this case.

Mr. C. E. B. age 35, was admitted to the hospital Jan. 30, 1923 complaining of an occasional severe headache and high blood pressure. His systolic pressure was 240, urine examination showed trace of albumin and a very few hyaline and granular casts. The blood pressure in this case was higher than in the preceding and the urinary findings were about the same. Blood chemical examination in this case however gave normal findings showing that impaired kidney function could be excluded from consideration as a possible cause of his high blood pressure and headaches.

OFFICE TREATMENT OF THE DISEASES OF THE ANUS AND RECTUM

By F. M. Durham, M. D., Columbia, S. C.

Medical Colleges of a few years ago had no trained men to teach ano-rectal pathology. The course was covered by one or two lectures from the chair of general surgery.

Young physicians graduated with only a vague idea of hemorroids and fistula. These were the only pathological conditions known to exist in this area, so far as the medical student knew. Most of them had never seen a proctoscope nor made a digital examination of the anus until after graduation.

Why have diseases of the anus and rectum been neglected?

(1) Medical students were not taught ano-rectal pathology. They were ignorant and were told that the hemorrhoid operation required a general anesthesia, the divulsion of the sphincter ani to the point of temporary paralysis, the thermocautery, locking of the bowels for several days, the packing of the anus with a large wad of gauze for a similar period of time. They

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were informed that this was one of the most painful of all operations.

(2) The laity also look upon all aches and pains in the anal region, and all discharge, such as mucus and blood, as being due to "piles".

(3) Anal and rectal examinations have always been repugnant and embarrassing to the patient and frequently so also to the examining physician.

(4) It is human nature to go the way of least resistance, and as a rule physicians obey natural laws as do other people. Rather than embarrass his patient, takes the patients diagnosis of "piles." He writes a prescription for a "never failing pile ointment." The physician's conscience is soothed even if the poor patient's piles are not.

Hill, of Harvard, says, "It is not remarkable, therefore, that many otherwise skillful practitioners imagine numerous difficulties associated with the diagnosis of these cases, and, consequently, the treatment adopted by them, is, as a rule, almost entirely perfunctory, hap-hazzard and unsatisfactory."

Bodkin says, "More serious mistakes—the result of slip-shod examination—are made in the diagnosis of diseases of the rectum than in any other portion of the body."

This neglect of anal and rectal diseases by the regular physicians, and the embarrassment and repugnance of being examined by the patient has been responsible for the great prosperity of the irregular, unscrupulous and advertising quack.

Bodkin again says, "Rectal diseases have been treated in the past by unscrupulous and unlicensed pile doctors. Not having been considered a dignified branch of medicine of surgery, few cared to take up the study of such diseases, and but for the efforts of a few practitioners of unquestionable ability and reputation, these diseases would have been disregarded by, and almost unknown to the legitimate practitioners of medicine."

Since the perfection of the electrically lighted pneumatic proctoscope and the advent of local anesthesia by the use of novocain and quinine and urea, and the perfection of the injection treatment of hemorrhoids, by the use of quinine and urea, the office or ambulant treatment of diseases of the anus and rectum have attracted the attention of some of our best medical men. This neglected branch of medicine and surgery has at last been divorced from the mystery and secrecy which the irregular and unscrupulous advertising quacks have for a long time successfully mystified and deceived the public.

I think we are now safe in stating that after much waiting and watching a new specialty in medicine and surgery has been born, and has just been christened, "The Office or Ambulant Treatment of Diseases of the Anus and Rectum." It has been estimated that one person out of every five has some ano-rectal pathology. If fifty percent of this is amenable to office or ambulant treatment, the office proctologist should have no fear of dearth of work.

By the term office treatment, I mean to include all diseases of the anus and rectum that can be diagnosed and treated in the office of the physician, the home of the patient, or in a very short stay in the hospital, and all operative work to be done under local or sacral anaesthesia.

How to Examine The Ano-Rectal Region

When the history of the patient indicates that he has been suffering from ano-rectal diseases, he should be undressed or clothes loosened, and placed on a table in the left lateral position and covered with a sheet. Then simply separate the buttocks and with the aid of a good light inspect the anus, perineum, buttocks and genitals. You see at once any discoloration, abrasion, eczema, cracks or eruption of the skin, discharges, such as mucus or blood, protrusion, such as external, thrombotic or protruding mixed hemorrhoids, anal fissures, posterior dimples, and fistulous openings, sometimes

so small as to be found with great difficulty. A blanched sodden appearance of the skin as in pruritus ani, a sentinal hemorrhoid as in chronic anal fissures and swelling as in perianal abscess. By palpation you are able to roll small fistulous tracts under your finger, which feel like small hard cords. Often they are easier to detect by palpation than by vision. All swelling and tender areas are located by palpation.

The digital examination should be made with the patient in the left lateral position, and he should be instructed to strain, as if at stool. The physician should have on a well fitting finger cot which has been previously lubricated. The finger should with great gentleness be inserted into the anus with a boring motion and with several twists of the wrist the whole anal mucosa is examined. If an ulcer or fissure should be present, press the sphincter on the opposite side of the ulcer. During the examination you should carefully note the force with which the sphincter clasps the finger. This muscle is small and its function is menial, but upon its integrity depends the foundation of society.

A hypertrophied or spasmodic sphincter usually means trouble higher up, a relaxed sphincter indicates constitutional diseases or the presence of large protruding hemorrhoids over a long period of time. While your finger is in the anus you feel whether the mucosa is soft and velvety, or are there indurations, elevations, depressions, such as are found in diseases of the columns or crypts of Morgagni, often malignant growths, strictures and polypus can be palpated.

Never think that internal hemorrhoids are absent because you cannot feel them. As a rule they cannot be palpated. (If the bowel is full of stool you should suspect chronic constipation or fecal impaction.) Often the internal opening of a fistulous tract can be palpated.

I shall not take time to describe the technique of the passage of the electrically lighted pneumatic proctoscope. The proctoscopic examination should be no more painful than the digital examination. With the proctoscope we detect deviation from the normal higher up than can be palpated by digital exploration.

Through your protoscope you may see angulations, ulcers, malignant and benign growths, blood, mucus, bleeding or denuded areas, strictures, in fact anything pathological that may be present.

The stools and gastric juice should as a rule, always be examined chemically and microscopically in all cases of proctitis or sigmoiditis.

As time does not permit I shall mention only a few salient points that should be observed in the office treatment of ano-rectal diseases. The first, and most important is to be just as painless as is compatable with good work. This is accomplished by gentleness on the part of the physician, a knowledge of the nerve supply of the local anatomy, and experience in the administration of local anaesthesia.

The anal canal and the lower portion of the rectum are liberally supplied with sensory nerves which accounts for the severe pain caused by lesions in this area. While on the other hand the rectum is not supplied with sensory nerves especially in the upper half. The whole anal area can as a rule be anaesthetized by an anterior and posterior puncture with the hypo-needle and sufficient relaxation of the sphincter is obtained to permit of the pulling down and removal of internal hemorrhoids the incision or excision of a fissure an ulcer or any small growth.

Sacral Anesthesia is produced by injecting about 30 c. c. of a 1 1-4 percent solution of novocain into the sacral canal. Anesthesia coming on in about 20 to 30 minutes and lasting for two hours. Anesthesia is so complete and covers such a large area that perineal prostatectomy, fistula in ano above internal sphincter and hemorrhoids by thermocautery and complete sphincter divulsion can be done absolutely without pain.

It is a mistake to think that all anal and rectal disease require surgical treatment.

Quite a large percent of diseases of this region are best treated by the administration of drugs, by diet, and by local applications to the affected parts.

Since the perfection of the electrically lighted proctoscope local treatment is administered to the last ten inches of the large gut almost as easily and quite as efficiently and intelligently as to the throat or any other cavity of the body.

About 1-3 of all internal hemorrhoids can be relieved by the injection of quinine and urea. This is the best treatment for the so-called bleeding piles.

DISCUSSION

DR. W. M. BEVIS, (Columbia):

I do not pretend to be an expert in this line, but I want to say in appreciation of Doctor Durham's paper that he has given us food for thought that we will do well to head. Two points I desire to stress. First, is the importance of a thorough examination of the patient. I will emphasize this by an experience I had when I was in general practice. I was called to see a boy early in the night. His father had been raised in the mountains of Tennessee and was very emphatic in his language. I made a hurried examination as the pains were in the lower abdomen, and on digital examination I could feel something like a tiny ball. I wondered what I was up against, and finally I found the whole lower anal region was impacted with watermelon seeds, and with considerable washing out and digital curettage I relieved the situation.

The second point is the matter of spinal or caudal anaesthesia. This cannot be too strongly emphasized as the correct method in these cases. I remember once attempting to do a clamp and cautery operation on an old gentleman. The electrical instrument broke down and I was under the necessity of calling in a man who had a good soldering iron after I had given him spinal anaesthesia for the operation. When the old man saw the hot iron he was frightened, but I hid his face and the anaesthesia was so complete that he did not feel it.

DR. H. W. RICE, (Columbia):

I wondered why Doctor Durham asked me to discuss this subject. I am not a specialist of any kind. I belong to that fast-fading branch, the general parctitioner, whose epitaph will soon be written. When I was a student there was but one specialty, and that was eye, ear, nose and throat. Recently we have had the rapid development of specialism, starting at the head, and now we have chest specialists, abdominal specialists, gastroenterologists and urologists, and now we come to specialists of the anus.

Seriously, I do not know any more about the subject than 99 out of 100 men know, but the development of illuminated instruments for various parts of the body has made it possible for a great many of us to be specialists who never could have been otherwise. The illuminated bronchoscope makes it possible for any physician to do more intelligent work, and perhaps the day will come when we will have specialists for every organ in the body.

DR. D. M. CROSSON, (Leesville):

I enjoyed the paper and think it is very important. He laid great stress on the examination of the rectum, and all I wish to do is to emphasize that point. I remember recently being called hurriedly to see a boy nine or ten years of age. They had had two or three physicians and they all said they could not do anything for him—that he was going to die. I went to work to try to find out what the trouble was, and in my examination I discovered the rectum full of gravels. He was a dirty little chap. I got a nurse to give him an enema of warm soap suds and we got out 147 gravels. For two or three days that child had suffered for lack of examination.

DR. J. R. YOUNG, (Anderson):

I want to emphasize what has been said about doing rectal operations in the office. For two or three years I have been doing hemorrhoid, fistula and other minor rectal operations under local anaesthesia, and for about a year and a half I have used epidural anaesthesia. I want to endorse what the doctor says as to the absolute necessity of that form of anaesthesia. You get an absolutely perfect anaesthesia and relaxation of the rectum. We have had about 10 per cent, of failures, but that is probably due to our technique. All we do then is to use a local

infiltration anaesthesia and go ahead. I think it is decidedly important for us to consider this from the economical standpoint if no other, because if you save a patient a good sized hospital bill you have rendered him your friend.

DR. JOHN H. YOUNG, (Columbia):

I believe the fault lies in a lack of accurate knowledge of the disease of this part of the anatomy. I believe further that the medical schools should pay more attention to teaching the diseases of this region. I know I did not have a fair idea of it when I left school, and all I know is from my own experience and watching others. I have not studied along this line, but a great deal of this work could be done in the office and relieve the patient of a hospital bill. I think examinations in this part of the body should be thorough, and if the general practitioner is not satisfied with his own examination he should call in a specialist. Such conditions as congestion of the mucosa, which is one of the stages before the formation of hemorrhoids, might be relieved by treating the constipation, putting soothing oils into the bowels, or some of the skin tabs might be removed in the office. But of course for large hemorrhoids the hospital is the place because of the danger of hemorrhage.

DR. F. M. DURHAM, (closing):

I just want to cite one or two cases I have seen that stress the fact that every patient that has been treated for a good while and that seems an obscure case, should have proctoscopic examination. The first case was referred to me—a man who had amoebic dysentery in the Phillippines during the Spanish-American war. He had had many hemorrhages. On examination by the proctoscope I found ulcers significant of amoebic dyentery. I put him on senna tea and high enemas, and he is a well man today. If that man had been proctoscoped he would have been cured as soon as he left the Army.

Another man had a blood pressure of about 200. He had had a thermo-cautery operation and ever since he had been constipated; had to take salts every day. I examined him and found a round stricture. In a month's time I had him dilated so that I could put two fingers in.

A woman was referred to me by a physician who thought she had a malignancy. I proctoscoped her and found nothing but an anal fissure, and when that was removed she immediately began to gain.

One of the best things I know of in proctitis is to pass a pneumatic prostoscope as far as it will go, put in two or three ounces of 10 to 20 per cent, argyrol, and then put the cap back on and blow it up, and then put a wad of cotton in and keep it there from three to twelve hours. I find that is one of the best treatments I know of.

I believe hemorrhoids are the result of proctitis. A lot of these cases if we just give them a treatment it will keep from having hemorrhoids.

A NEW CHAIR AT JEFFERSON MEDICAL COLLEGE

In recognition of the far reaching developments of bronchoscopy in the diagnosis and treatment of diseases of the lungs and of esophagoscopy and gastroscopy in the diagnosis and treatment of diseases of the esophagus and stomach, the Board of Trustees and Faculty of The Jefferson Medical College have created a new Chair to be known as the Department of Bronchoscopy and Esophagoscopy. Dr. Chevalier Jackson, formerly Professor of Laryngology in The Jefferson, has been elected to the Professorship of the new Department. Dr. Fielding O. Lewis has been elected to fill the Chair of Laryngology vacated by Dr. Jackson.

IS MODERN LIFE TOO STRENUOUS?

One out of every 123 persons in the United States is confined in an institution supported by the state because he is either mentally defective, dependent, criminal or delinquent, according to figures given in the September Hygeia, popular health magazine (Chicago).

"The fact that so large a part of our population does not meet the demands of society must inevitably arouse the question whether the strain of modern civilization is passing the limit of human endurance," it declares.

In regretting the large amount of juvenile delinquency, the magazine puts the blame on the lessening of intimate home ties, which formerly were the pride of American home life.

PEDIATRICS

R. M. POLLITZER, M. D., GREENVILLE, S. C.

Parents attribute most fevers occurring in their offspring to some dietary indiscretion constipation or teething. This should not occasion the least surprise for it is a well known fact that in many varied conditions the first symptoms are referable to the gastro-intestinal tract. Constipation is common in most ailments which begin with fever or vomiting. Further as few children are properly fed and many from time to time get hold of forbidden articles they are frequently the subject of a digestive upset. The teeth can be seen inbedded in the gum from the fourth or fifth month usually, and from then on for several years one who looks may see a tooth coming or just erupted. The ancient and common fallacy of confusing the effect for the cause as a secondary disgestive disturbances; or jumping to the conclusion that what is apparent most easily must be the fons et origo malorum is quite pardonable in those unskilled in medicine. But it should be the constant aim of the physician to guard against so simple and dangerous an error. Nearly all doctors precede the examination by obtaining a history. This procedure makes matters easier but does have a disadvantage. Quite naturally it tends to create a prejudice. At times where there is a history of injudicious eating one stops at that, failing to realize that this may not be the sole etiologic factor or may not have a bearing at all. Again and again a child develops an otitis, a tonsilitis, or perhaps a pyelitis and the first symptoms being fever and vomiting, a history of bad feeding is obtained. This seems to provide sufficent cause for the attack, fits in with the family diagnosis and saves work for the doctor. Everybody is well satisfied. The family are pleased that matters are no worse and a good prognosis is given. It appears but right and proper that a purgative as calomel or oil should be ordered. The symptoms may however not abate, and on the following day the little patient is worse. A further cleaning out is given, which does not help. In fact the loss of water from the tissues has done harm. It sometimes unfortunately happens that for 3 or 4 days all thought is put on elimination and none on examination until some rather obvious sign as an eruption, a discharging ear, or purulent urine is forced on the attention. While of course a complete physical examination should be made at the first visit and given just as much weight as the history, yet it is by means infrequent for the examination to show nothing of a positive nature. A diagnosis often cannot be made at once or if made is purely tentative. A consolidation cannot always be found early, and having been found may resolve and give place to an entirely different chest finding as, for instance a pleuritic effusion. It is therefore only right that when we acquiesce in the diagnosis of an acute digestive upset, it should be with the mental reservation that we are going to search further and we reserve the right to change our opinion. While an initial physical examination is made by most doctors yet too few follow up the case by repeating the process in whole or part, forgetting that diseases progress, and that signs come and go. It has been shown by many workers that the vast majority of our errors are due to lack of careful repeated examination rather than to ignorance of the science. Laziness or insufficient time causes our downfall more often than lack of sense or training.

In short; history is always of value, but its importance must not be over estimated, and to properly look after the sick child requires that the attending physician must give sufficient of his time and energy.

SOCIETY REPORTS

RIDGE MEDICAL ASSOCIATION MEETS

The Ridge Medical Association met in the Leesville Infirmary, Monday evening. The attendance was larger than usual. Drs. Harman and Pitts of Columbia met with the association, and participated in the discussions to the delight and edification of all. Drs. W. P. Timmerman and James Crosson, each presented a patient for a clinic. Dr. R. H. Timmerman read a paper on pyorrhea in which was given the latest opinions on this disease. This paper was discussed by Drs. Pitts, Harmon, Ridgell and W. P. Timmerman. A general discussion on medicines was participated in freely by the members. Supper was announced at this time and the members were invited into the dining room, where a beautiful and tempting feast was spread. The efficient and pleasant nurses saw that each one was well served. The association tendered a vote of thanks to the Infirmary for the use of their building, the supper furnished and the nurses' courtesies, a vote of thanks was also extended Drs. Harmon and Pitts for their very instructive discussions on the various subjects. The association voted Drs. W. T. Gibson special thanks for his splendid address in the Christian Church, the fifth Sunday night in August, to the citizens of Batesburg. This meeting was without doubt one of the most successful and enjoyable held.

The association adjourned to meet October 20th in Dr. W. P. Timmerman's office.

FOURTH DISTRICT MEETING

On September 16th, the Fourth District Medical Society held its 18th annual meeting in Anderson at the Country Club. In spite of very bad weather the attendance was unusually large, 86 members registering and all but two of the papers on the program were read by their authors. Some of the papers elicited a great deal of discussion and showed a lively interest of the members in these subjects. The Anderson County Medical Society provided a sumptuous dinner which was served in the dining room and porch of the Club house and the visiting physicians showed their appreciation and enjoyment of this feature of the meeting. The officers elected for the ensuing year are:

President, Dr. B. A. Henry, Anderson; Vice-President, Dr. W. R. Dendy, Pelzer; Secretary-Treasurer, Dr. L. Rosa H. Gantt, Spartanburg.

The executive committee will decide on the place for next meeting.

L. Rosa H. Gantt, Sec'y.-Treas.

DOCTORS HEALTHIER THAN LAYMEN

That doctors practice what they preach, subconsciously at least, is shown by recent physical examination submitted to by members of the Kings County Medical Society in Brooklyn, New York. The ninety-one doctors who were given personal health examinations were found to be in better general health than other members of the community of corresponding age, says Hygeia, popular health magazine (Chicago), in its September issue.

The reason for this supperiority is thought to be in the fact that physicians less frequently have bad conditions within the mouth and less constipation than the general public. Their blood pressure too was lower than the laymen of corresponding age.

Says Hygeia: "The general conclusion reached that physicians, despite irregular hours of work, irregular routine in life as to meals and sleep, and less systematic exercise and recreation than are usually considered advisable, must achieve their good health by, subconsciously at least, practicing what they preach."

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

HERNIA FOLLOWING APPENDECTOMY.—The usual causes of this hernia are postoperative suppuration in the abdominal wall; the use of drains that are larger than necessary; a faulty closure of the muscle and fascia layers; the division of nerves supplying the muscles; and the use of the wrong incision. The McBurney incision gives the lowest percentage of postoperative hernias.

An elliptical incision should be used if the sac is thin and adherent to the skin; if the sac is not adherent, a vertical incision saves time. Nothing is gained by opening the fundus—the adhesions here often make it difficult or impossible to reach the neck of sac—and time is saved by beginning the dissection at the neck and working inward. The author found that the simplest method of exposing the hernial opening is to invert the sac on one or two fingers, and feel the sharp fascial edge which is unusually most distinct on the outer side of the hernia near Poupart's ligament. With the finger as a guide, the incision is made directly down to the fascia. The abdominal wall should be reconstructed as well as possible; and the muscles and facia used as a single flap which is brought down and broadly overlapped by a second flap secured below from the external oblique aponeurosis.—Leign F. Watson: Chicago Medical Recorder March, 1924.

PREVENTION OF POSTOPERATIVE HERNIA.—A muscle-splitting incisioin should be used when possible. In long incisions muscle fibres must not be sacrificed needlessly, and the motor nerves must be saved. The facia is the strongest structure in the abdominal wall and it is very essential to close it properly. It is frequently undertension and unites more slowly than muscle tissue; for this reason it is necessary to overlap each layer separately. When closure under tension is unavoidable, the patient's shoulders should be kept in a semi-reclining position and the knees elevated on pillows (the "jack-knife" position) for a week after operation. Tension or stay-sutures are valuable to prevent strain on the fascia stitches. A gain in weight after operation, especially in obese subjects, should be avoided because it increases intraabdominal tension and weakens the abdominal wall. The use of an elastic belt checks the tendency to rapid accumulation of fat.—Leigh F. Watson: Northwest Medicine, April, 1924.

A REVIEW OF ONE HUNDRED CASES OF CARCINOMA OF THE CERVIX

The report made by Lawrence A. Pomeroy and Abraham Strauss, Cleveland (Journal A. M. A., Oct. 4, 1924), is based on 100 consecutive cases of carcinoma of the cervix in patients applying for radium treatment. The special purpose of the study of this series of cases was to find out whether the microscopic examination of tissue removed at the time of the original examination or treatment would enable one to make a prognosis with accuracy. The best results from treatment were obtained in the spinal cell type with pearls and in the adenocarcinomas. A rather surprising feature of these results is the large proportion of palliations, 71 per cent., obtained in the transitional type for the six month period, and the rapid decrease of this percentage in the other periods. This suggests that the cells of this group may be quite sensitive to radium, and brings up the question of the advisability of repeating the irradiation in even apparently quiescent cases of this group.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., CHARLESTON, S. C.

RADIUM IN TREATMENT OF CANCER OF THE EYE

If a cancer of the conjunctiva and cornea is properly removed with destruction of the base of origin, permanent cure results, but there is such an appreciable element of unsuccess as to make one desire better methods of treatment. The following summary given in the American Journal of Opthalmology, August 1924, page 594 of radium treatment of these conditions is therefore of interest.

"Epidermoid carcinoma of the conjunctiva is a local disease, restrained in its growth by the fibrous outer layer of the eyeball.

Surgery usally fails to cure and actually assists the local and regional spread of the disease.

Radium therapy gives promise of being a curative agent in cases not involving intrinsic ocular structures. When perforation has occured, a combination of surgery and radium is indicated.

Evidence is accumulating which makes it appear that heavily filtered radiation may produce opacities in the lens. Unfiltered radiation is therefore the agent of choice."

I have recently had Dr. Robt. Taft to use it. The condition is at present completely well, but only about two months have elapsed since the complete disappearance of the growth.

Last year and again this year, I have seen an osteo-sarcoma of great extent of both orbits arising from the nose. That has not yielded to X-Ray or radium, nor does the present day literature promise help for this type of growth. But cancers of the conjunctiva, cornea and lids are sufficiently common and severe in their course for us to use and want the help of radium, guarding the application of it so as not to cause lens opacity or optic nerve atrophy.

AMOUNT OF BLOOD LOST DURING SOME OF THE MORE COMMON OPERATIONS

The amount of blood lost in a series of operations has been determined by W. D. Gatch and W. D. Little, Indianapolis (Journal A. M. A., Oct. 4, 1924). Colorimetric means were employed. To test the accuracy of the method, some preliminary experiments on animals were carried out. In these it was determined how accurately a known loss of blood could be estimated. Thirty estimations have been carried out. A consideration of the results is extremely instructive. They show that the loss of blood in ordinary laparotomies is insignificant. Even in radical gastrectomy for carcinoma, the loss was only 232 c. c. They also show that in operations other than laparotomies, the loss is much greater. In a case of laminectomy for fracture of the spine in which 672 c. c was lost, a large part of the blood was already extravasated at the site of injury. In a case of radical excision of the breast, pectoral muscles and axillary glands for carcinoma, 710 c. c. was lost. This case shows the very considerable loss of blood that may be masked by the use of gauze packs instead of being stopped by them. These results show also that a patient in fairly good physical condition may lose from 600 to 700 c. c. of blood without any apparent harmful effect on the general condition or the postoperative course. An adult in good health does not manifest serious effects from hemorrhage until the amount of blood lost is between 800 and 1,000 c. c. It would seem that when a patient requires a transfusion because of hemorrhage or anemia, the amount of blood given to be of much benefit should be rather large—at least 600 or 700 c. c. In desperate cases to save lives, two donors should be used and from 1,200 to 1.500 c. c. of blood given. Occasionally it may be wise to give even more than this—say from 2,500 to 3,000 c. c. in the purpuras or conditions with bleeding tendency. Operative or traumatic hemorrhage will probably be fatal before indication for such large amounts would arise.

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Students at this college are required to study hygiene and must have a full credit in that subject toward graduation. This ruling was made to combat the college tendency of sleeping little and late, exercising irregularly and irrationally, eating sweets and disdaining wholesome foods, smoking to excess and being generally ignorant of the laws of health.

Dr. J. Rosslyn Earp, director of the department of hygiene at Antioch College, writes of the modern plan of health education carried out there in the October *Hygeria*, popular health magazine published by the American Medical Association.

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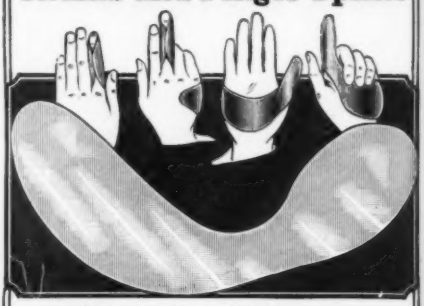

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